

**PHOTOTRANSISTORS**

**1.6mm x 0.8mm x 1.1mm (0603)**

KP-1608P1C WATER CLEAR LENS

KP-1608P1BT BLUE TRANSPARENT LENS

**2.0mm x 1.25mm x 1.1mm (0805)**

KP-2012P3C WATER CLEAR LENS

KP-2012P3BT BLUE TRANSPARENT LENS

**3.2mm x 1.6mm x 1.1mm (1206)**

KP-3216P3C WATER CLEAR LENS

KP-3216P3BT BLUE TRANSPARENT LENS

**3.0mm x 1.0mm x 2.0mm (1104)**

KPA-3010P3C WATER CLEAR LENS

KPA-3010P3BT BLUE TRANSPARENT LENS

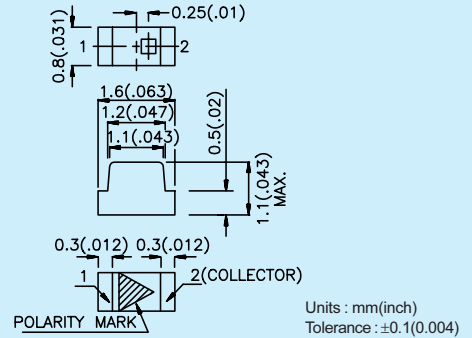
**ABSOLUTE MAXIMUM RATING  $T_A=25^{\circ}\text{C}$**

Parameter	Max. Ratings
Collector-to-Emitter Breakdown Voltage	30V
Emitter-to-Collector Breakdown Voltage	5V
Power Dissipation at (or below) 25°C Free Air Temperature	100mW
Operating Temperature Range	-40°C ~ +85°C
Storage Temperature Range	-40°C ~ +85°C

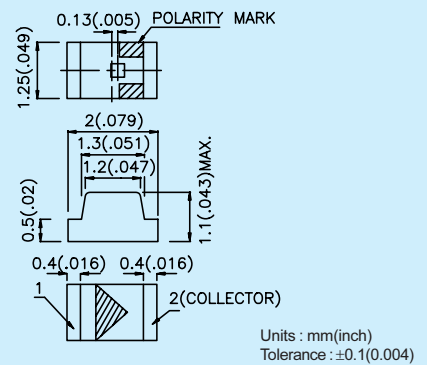
**ELECTRICAL AND RADIANT CHARACTERISTICS  $T_A=25^{\circ}\text{C}$**

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
$V_{BR\ CE0}$	Collector-to-Emitter Breakdown Voltage	30	-	-	V	$I_C=100\mu\text{A}$ $E_e=0\text{mW}/\text{cm}^2$
$V_{BR\ EC0}$	Emitter-to-Collector Breakdown Voltage	5	-	-	V	$I_E=100\mu\text{A}$ $E_e=0\text{mW}/\text{cm}^2$
$V_{CE(SAT)}$	Collector-to-Emitter Saturation Voltage	-	-	0.8	V	$I_C=2\text{mA}$ $E_e=20\text{mW}/\text{cm}^2$
$I_{CEO}$	Collector Dark Current	-	-	100	nA	$V_{CE}=10\text{V}$ $E_e=0\text{mW}/\text{cm}^2$
$T_R$	Rise Time (10% to 90%)	-	3	-	$\mu\text{s}$	$V_{CE}=5\text{V}$ $I_C=1\text{mA}$ $R_L=1\text{K}\Omega$
$T_F$	Fall Time (90% to 10%)	-	3	-	$\mu\text{s}$	
$I_{(ON)}$	On State Collector Current	0.1	0.3	-	mA	$V_{CE}=5\text{V}$ , $E_e=1\text{mW}/\text{cm}^2$ , $\lambda=940\text{nm}$

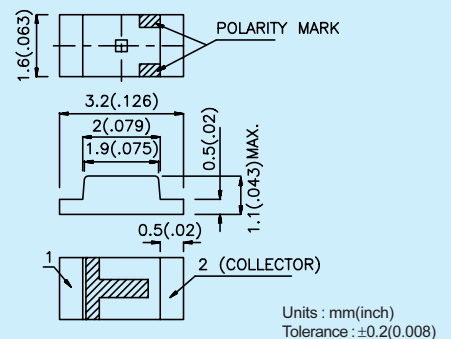
KP-1608P1 1.6mm x 0.8mm x 1.1mm (0603)



KP-2012P3 2.0mm x 1.25mm x 1.1mm (0805)



KP-3216P3 3.2mm x 1.6mm x 1.1mm (1206)



KPA-3010P3 3.0mm x 1.0mm x 2.0mm (1104)

